

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 23-33 and 43 in the reply filed on July 30, 2008 is acknowledged. The traversal is on the ground(s) that the amended composition of claim 23, which is the common technical feature of groups I-III is not taught in the prior art. This is not found persuasive because the amended composition itself is not the common technical feature of the application. Based on the original disclosure, the technical feature of the application is the composition of the original claim 23 (Page 2:6-15). As the crosslinked thermoplastic has been deemed optional in disclosure, it cannot, by definition, be the special technical feature. Thus further limitation of the thermoplastic does not materially affect the lack of unity. The requirement is still deemed proper and is therefore made FINAL.

Claims 34-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 30, 2008.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23, 24, 30-33, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rätzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 23: Rätzsch et al. teaches a composite material (example 5) comprising up to 300% by weight of wood fibers/particles (5:32-39) per 100% amine resins (14:26-44) and a triazine resin (2:37-58) that can be a melamine resin (2:20-36) that has been cured/cross-linked (14:26-40). Rätzsch et al. also teaches mixing the melamine ethers with ethylene vinyl acetate in a ratio of 2:1 by weight (Example 7).

Rätzsch et al. does not teach partially crosslinking the ethylene vinyl acetate polymer. However, Grigo et al. teaches using partially crosslinked ethylene vinyl acetate polymer (1:40-42) with a vinyl acetate content of from 30 to 50 (1:52-55) as an additive in a polymer mixture. Rätzsch et al. and Grigo et al. are analogous art as they are concerned with the same field of endeavor, namely polymer blends comprising ethylene vinyl acetate additives. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the partially crosslinked ethylene vinyl acetate polymer of Grigo et al. in the mixture of Rätzsch et al., and the motivation to do so would have been, as Grigo et al. suggests, the mixtures comprising crosslinked ethylene vinyl acetate polymers have higher notched impact strength than their uncrosslinked counterparts (3:4-9).

Considering Claim 24: Rätzsch et al. teaches the wood as being present in fibers or flour (5:19-39).

Considering Claims 30 and 31: Rätzsch et al. teaches the material as being a foamed material, a profile or an injection molded article (abstract).

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Considering Claim 32: Rätzsch et al. teaches the linking groups as being other than the excluded group (2:58-3:10) and the hydroxyl groups as being exclusively etherified with C<sub>1</sub>-C<sub>18</sub> alkyl groups (3:52-54).

Considering Claim 33: Rätzsch et al. teaches the thermoplastic as being ethylene-vinyl acetate copolymers, polyurethane polymers, or aliphatic or aromatic polyesters (5:40-6:55).

Considering Claim 43: Rätzsch et al. teaches a roof element comprising the composite material (16:59-17:10).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132) as applied to claim 23 above, and further in view of Imoto (US Pat. 5,780,519). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 25: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches the wood as being used up 75% of the composite (14:26-44).

Rätzsch et al. does not teach the wood as being a combination of fibers and shavings. However, Imoto teaches using a combination of fibrous wood and wood shavings in a wood composite material (1:53-56 and 2:54-56) where the shavings are present in an amount of at least 50 percent of the wood material (7:41-43). Rätzsch et al. and Imoto are combinable as they are concerned with the same field of endeavor, namely lignocellulsoic composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the combination of wood fillers of Imoto in the composite of Rätzsch et al., and the motivation to do so would have been, as Imoto suggests, it will lower the cost of the composite (7:41-8:3).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132) as applied to claim 23 above, and further in view of Medoff et al. (US Pat. 6,448,307). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

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Considering Claims 27-29: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches adding up to 2 weight percent of a UV absorber (14:40-42).

Rätzsch et al. does not teach adding a flame retardant, pigment, or auxiliary. However, Medoff et al. teaches adding a flame retardant, colorant/pigment or lubricant (6:20-28) to a melamine-wood composite. Rätzsch et al. and Medoff et al. are combinable as they are concerned with the same field of endeavor, namely melamine-wood composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the components of Medoff et al. to the composite of Rätzsch et al., and the motivation to do so would have been, as Medoff et al. suggests, these are well known additives in thermosetting compositions (6:20-28).

Rätzsch et al. does not teach the flame retardant, pigment, or auxiliary as being added in the claimed amounts. However, it is well known in the art to optimize result effective variables such as ingredient amount. It would have been obvious to a person having ordinary skill in the art at the time of invention to have optimized the amounts of the components through routine optimization, and the motivation to do so would have been to increase the fire resistance, provide the desired colored product, and to increase the processability respectively.

### ***Response to Arguments***

Applicant's arguments with respect to claims 23 25, 27-33, and 43 have been considered but are moot in view of the new ground(s) of rejection.

The rejection under obviousness type double patenting in view of the claims of application 11/922,432 has been removed, as the claims require the thermoplastic to be uncrosslinked, as opposed to the partially crosslinked thermoplastic of the instant claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./

Supervisory Patent Examiner, Art Unit 1796

LJH

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